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Twelve 5-mm-diameter cores were extracted from logs on 13 June 2007. The cores were processed and crossdated at the Wooster Tree Ring Lab using standard dendrochronological techniques (Stokes and Smiley, 1968). These include preparing the core surfaces by sanding, counting, and measuring ring-widths to the nearest 0.001 mm. Crossdating was performed visually and using the computer routine COFECHA (Holmes, 1983).

Eleven cores from oak logs (*Quercus*) were successfully calendar-dated (Table 1) The ring-width series from the cores were internally crossdated with one another to construct a floating ring-width series of 169 years. This floating chronology was then absolutely dated against calendar-dated, living, ring-width chronologies from the region including Johnson Woods, Sigrist Woods, and Browns Lake Bog (ITRDB, 2005: Wooster Tree Ring Lab, unpublished data, 2005). The floating ring-width chronology when adjusted to calendar dates ranges from 1671 to 1839 AD (Table 1).

Table 1: Calendar-dated tree-ring series from the OSU cabin in Holmes County

Sample number	First Year of Growth	Last Year of Growth	Total Years
OSU1A0	1724	1836	113
OSU2A0	1695	1838	144
OSU4A0	1701	1834	134
OSU5A0	1671	1837	167
OSU6A1	1681	1822	142
OSU7A0	1678	1839	162
OSU8A0	1711	1835	125
OSU9A0	1688	1838	151
OSU10A	1746	1838	93
OSU11A	1692	1838	147
OSU14Z	1721	1834	114

The tree-ring dating was strong and unambiguous – based on our results it seems the timber was cut primarily in 1838 (4 logs) and one in 1839. This is based on calendar dates on what we have determined to be the outer rings of the logs. These trees were cut after the growing season – so likely in the winters of those years or early spring prior to growth.

This chronology will contribute to tree-ring data in Northeast Ohio as well as be included in climate studies, especially those concerned with drought variability in the region and our efforts to date historical structures. All cores and data are archived at the Wooster Tree Ring Lab, which is housed in Scovel Hall in the Department of Geology at The College of Wooster. We would be happy to discuss the results with you; specific information can be found on the TRL website (http://www3.wooster.edu/treering/).

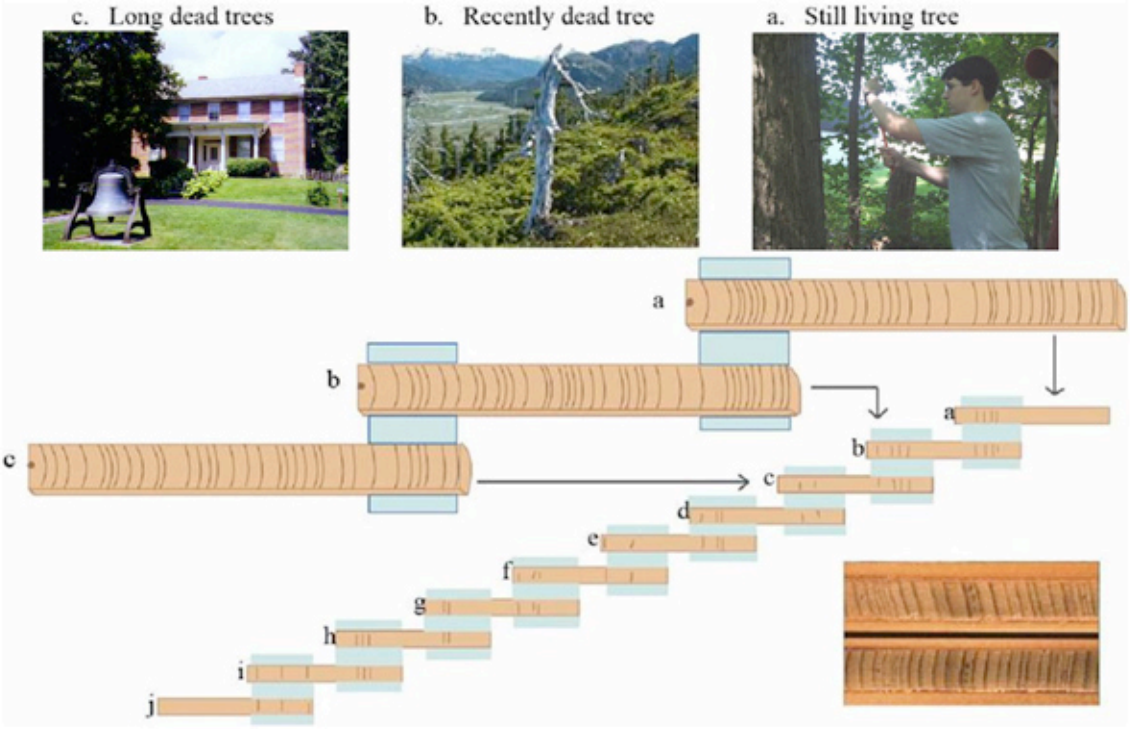

Figure 1: Tree-ring crossdating relies on matching overlapping ring-width patterns. If matches are made to living tree then calendar dates can be assigned to the outer rings of the tree.

References:

Holmes, R.L. 1983. Computer-assisted quality control in tree-ring dating and measurement. *Tree Ring Bulletin*, **43** (1), 69-78.

Stokes, M. A., and Smiley, T. L., 1968: *An Introduction to Tree-Ring Dating*. Chicago: University of Chicago Press. 73 pp.

International Tree-Ring Data Base (ITRDB), 2005,www.ncdc.noaa.gov/paleo/paleo.html.